

III. REMARKS

A. Information Disclosure Statements (IDSs)

Applicant would like to thank the Examiner for signing off on the IDS sheets for IDS's #1 to #4 which were brought to the Examiner's attention with Applicant's last response.

Applicant would also like to thank the Examiner for correcting the informality on the sign-off sheet for IDS #4 by initializing the non-patent literature document, "Car Loans in Minutes." A copy of the 1449 that the Examiner initialed in full is provided as an attachment to this filing so that the prosecution file is complete.

B. Claim Amendment

Applicant has amended the independent claim (Claim 12) and some of the dependent claims (Claims 19-25 & 27-29). No new matter is presented with the amendment. Applicant's remarks, provided below, shall demonstrate that when properly construed in accordance with the specification, the claims are clearly patentable over the applied art.

After entry, claims 13-17 and 19-30 are pending in this application.

C. The Rejections

The Office Action rejects Claims 13-17* and 19-30 under § 102 based on U.S. Pat. No. 5,774,882 ("Keen"), or alternatively, under § 103. *The Examiner only refers to 13-14 and 19-30 in the text of the Office Action, but Applicant assumes that claims 15-17 were meant to be included.

The invention is generally directed to a computer-based method for managing the processing of forms (e.g., paper forms applying for financial products) in a system **processing multiple different types of forms**, and where the machine-based reading process (e.g., OCR or ICR) produces results that vary in accuracy. Accordingly, the invention provides a method for processing the machine-read forms in order to validate and/or repair the form data before further processing. Therefore, generally the processing is referred to as “validation and repair processing.”

Particularly, the invention employs a contingent workflow approach that processes the forms in different ways and order based on the results of the machine-based reading (OCR or ICR) process. In particular, **the processing of the forms is prioritized based on priorities assigned based on a form code identifier** associated with the forms. If the Examiner properly construes the claims in accordance with the specification, it is clear that the applied reference is thoroughly distinguished.

The Examiner is Obligated to Interpret the Claims, and particularly, the term “Form Code Identifiers,” in View of the Specification

The Examiner has improperly construed the claim language in order to make the applied Keen reference appear to meet the claimed metes and bounds of the invention. However, during patent examination the pending claims are to be given their broadest reasonable interpretation **consistent with the specification**. *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000); MPEP § 2111 [emphasis added]. The broadest reasonable interpretation of the claims must also be **consistent with the interpretation that those skilled in the art would reach**. *In re Corthright*, 165 F.3d 1353,

1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999); MPEP § 2111 [emphasis added]. It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the "ordinary" and the "customary" meaning of the terms in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003); MPEP § 2111.01 [emphasis added].

Before even referring to the specification, the person of ordinary skill in this field would readily comprehend the term "form code identifiers" in terms of its constituent terms--"form," "code" and "identifiers"-- to refer to "codes" that "identify" different types of "forms." This interpretation is also consistent with the usage in the specification. For example, page 8, lines 6-11 of the specification refers to the creation of new types of forms which may be assigned an "identification number 320" that "may appear on the resulting form as printed text, or it may be encoded in machine-readable format such as a barcode." Page 9 of the specification indicates that "[a] form code identifies the particular type of form 410."

In the instant office action, the Examiner has taken the view that Applicant's claimed "form code identifiers" can "read on dates," meaning the date that an applicant fills out on a form. See Office Action, par. (4). Applicant strongly maintains that the term "form code identifier" can not be interpreted to correspond to "dates" as urged. As explained above, the plain meaning of the term, consistent with customary usage, and consistent with the specification, is that "form code identifier" refers to **codes that identify different types of forms**. A date on a form, such as the date that a consumer fills out the

form, is not a form code identifier. The purpose of form code identifiers is to identify the form type so that it may be processed accordingly; a date does not identify the form type and does not satisfy that purpose. Finally, there is nothing in Applicant's specification to suggest that a "date" is a form code identifier.

While Applicant believes that the amendment is not necessary, Applicant has amended the recitation of "form code identifiers" to completely foreclose the issue.

With the Proper Interpretation, Independent Claim 13
Clearly Distinguishes Keen

As amended, independent Claim 13 recites the following features:

- Preamble: "A computer implemented method for converting forms to electronic format in a system adapted to process multiple different types of forms"
- "(a) receiving forms, the forms including form code identifiers on the forms, the form code identifiers being provided by the form provider and not by an applicant completing the form;"
- "(c) determining the form code identifiers for the forms, the form code identifiers identifying a plurality of different types of forms corresponding to different financial products available to applicants;"
- "(d) assigning priorities to the forms based on the determination of the form code identifiers, wherein at least some of the assigned priorities for some forms are different from the assigned priorities for other forms;"
- "(e) routing the forms to different validation and repair systems based on the determined form code identifiers;"

- “f processing the forms for validation and repair according to a contingent workflow, the contingent workflow being based at least in part on priorities assigned to forms”

At least features (a) and (c)-(f) of Claim 13 are not taught or suggested by the applied prior art of Keen.

Keen discloses a form processing system **primarily concerned with fraud detection**, which is a different focus from Applicant’s invention. As reflected in Keen’s Figure 1, the OCR’d read form is checked for (1) presence of illegible characters (block 60), (2) whether it is a business application or individual application (block 80), (3) discrepancies between postmark/mailing address (block 100), and (4) multiple requests from the same individual (block 150).

Keen’s fraud detection system plainly does not teach features (c), (d) or (e) of Applicant’s invention **based on the proper construction of the claim terms**.

Keen does not teach “(A) receiving forms, the forms including form code identifiers on the forms, the form code identifiers being provided by the form provider and not by an applicant filling out the form,” nor “(C) determining the form code identifiers for the forms, the form code identifiers identifying a plurality of different types of forms corresponding to different financial products available to applicants”

First, Keen does not teach (a) forms with “form code identifiers . . . being provided by the form provider and not by the applicant completing the form,” nor (c) “determining form code identifiers” on the forms that “identify[] a plurality of different types of forms corresponding to different financial products.” As claimed, Applicant’s invention assigns form codes to the various types of forms for different financial products so that those codes

can be identified when a form is read, and then the form can be processed according to its form type. Keen does not teach this feature. Keen teaches that a **standard application** may be examined differently based on whether the applicant is a business or an individual, but there is only a single standard form type and there is no suggestion of having many different types of forms each assigned a form code: “Preferably, the credit application is a *standardized form*” (Keen, Col., 3, line 21; emphasis added) . . . “The automatic clerk takes the OCR-produced document and reads the application data . . . *on a standardized form*” (Keen, Col. 3, lines 39-40; emphasis added). Keen’s reference at Col. 3, lines 43-47 indicates that the standard form may have a bar code indicating whether the form was a corporate application form or an individual application form, but it is clear that Keen is teaching only a single “standardized form,” in Keen’s words.

As regards this limitation, in the Office Action at par. (4), the Examiner makes the following assertion: form “code identifiers can read on dates.” For the reasons explained above, Applicant respectfully traverses this assertion because no reasonable interpretation of “form code identifiers” could correspond to a “date,” wherever that might be found in Keen (In fact, Applicant finds no reference to dates in Keen, and the Examiner has supplied no citation). Further, Applicant’s amendment which provides that the form code identifiers are “provided by the form provider and not by the applicant completing the form” makes it clear that this claim limitation cannot read on Keen’s date.

Keen does not teach “(D) assigning priorities to the forms based on the determination of the form code identifiers, wherein at least some of the assigned priorities for some forms are different from the assigned priorities for other forms”

Nor does Keen teach or suggest step (d) of “assigning priorities to the forms based on the determination of the form code identifiers.” In Applicant’s invention, the priority of form processing is assigned based on the determined form code. Just by way of non-limiting example, page 9 of the specification indicates that the priority may be assigned “on a scale of 1 to 10, designated by high, medium, or low, or otherwise rank ordered.”

Keen does not remotely teach or suggest the feature of assigning priorities to processing based on determining the types of forms. Keen does not suggest prioritizing in any fashion--in Keen, all business applicants are simply routed to corporate queue 90, and all individual applicants are routed to fraud processing 100. Applicant’s invention has the benefit of allowing processing resources to be allocated based on such things as the type of application or on whether the applicant is a known high-value client. This benefit is completely absent from Keen’s fraud detection focused system.

In par. (4) of the Office Action, the Examiner makes the following assertion regarding the above limitation: “priorities can read on First in first out type constructs.” The question of whether the person of ordinary skill would understand “prioritizing” in this context to extend to mere “first in, first out” (FIFO) processing is an interesting one, but in the end, is not the relevant question **because the claim language governs the patentability inquiry here**. The claim provides that priorities are assigned **based on the determined form code identifiers**. Keen does not remotely suggest assigning priorities

based on form code identifiers, and the Examiner has not suggested that it does. Assuming arguendo, that Keen performs its processing of forms based on FIFO, then the processing is being performed based on when the form was received, not based on the type of form as reflected by the determined form code identifier.

Moreover, Applicant has amended the claim to provide that “at least some of the assigned priorities for some forms are different from the assigned priorities for other forms” so that the claim language clearly cannot read on Keen’s process where each form is forwarded for FIFO processing.

Keen does not teach “(F) processing the forms for validation and repair according to a contingent workflow . . . based . . . on priorities assigned to forms”

Keen does not teach or suggest step (f) of processing the forms according to a contingent workflow that is based at least in part on “priorities assigned to the forms.” As noted above, Keen does not assign priorities based on an identified form code, so it is not surprising that Keen fails to teach processing based on assigned priorities.

In par. (4) of the Office Action, the Examiner observes that Keen “teaches a workflow contingent on flagged content,” citing Keen at Col. 3, lines 28-30. However, this section of Keen simply relates to flagging certain form content that is recognized as being illegible. This does not relate to the claim feature of processing **based on the priorities assigned to the forms**, which were based on the form code identifiers.

Keen does not teach “(E) routing the forms to different validation and repair systems based on the determined form code identifiers”

Finally, Keen does not teach routing the forms to different validation and repair systems based on the determined form code identifiers. Such a teaching or suggestion is completely absent from Keen.

The Examiner’s Alternative § 103 Rejection

The Examiner’s § 103 analysis in par. (6) of the Office Action is very brief, and suggests a basic misunderstanding about the claimed invention.

The Examiner does not refer to particular claim limitations in the § 103 analysis, nor otherwise follow the 3-prong inquiry under *Graham v. John Deere* required by MPEP § 2142. For at least this reason, the § 103 rejection should be withdrawn.

Also, Applicant notes the following remarks by the Examiner regarding obviousness:

“The prior art clearly teaches that within the art of converting forms from paper to electronic format, it is well known to read the data in whole or in part and to conditionally process the forms based on the data contained therein (Figure 1). Having defined this art recognized variable, it would have been obvious for one skilled in the art to have verified the data in whole or in part depending on the desired result. **While the prior art does not teach every fraud detection step, it seems reasonable to assume that this step includes those claimed by the applicant. In the alternative, it would have been obvious for one skilled in the art at the time to have modified the prior art as motivated by need to add additionally security.”**

See Office Action at par. (6) [emphasis added].

Applicant would first like to bring to the Examiner’s attention that the claimed invention is not directed to fraud detection. Neither the claims nor the specification are focused on fraud detection; rather, the invention is directed to how to receive, validate, and

where necessary, repair, forms of many different form types received in a large volume form processing operation. The invention achieves this by allocating form processing resources based on the form code identifiers that indicate the various types of forms.

Obviously, Applicant's invention does not exclude fraud detection processing as part of the overall form processing operation, but the claimed invention does not require fraud detection processing.

Therefore, the Examiner's reference to "every [claimed] fraud detection step" is misplaced. Moreover, to the extent that Keen, which is directed to fraud detection, may have teachings generally relevant to the claimed invention, the conclusion that "**[w]hile the prior art does not teach every fraud detection step, it seems reasonable to assume that this step includes those claimed by the applicant**" is not a proper basis for rejection under § 103. The Examiner can not reject the claims under § 103 based on a "reasonable to assume" rationale; either the Examiner demonstrates that the reference actually discloses the invention, or the Examiner must demonstrate proper motivation for modifying the reference or combining it with another reference to supply the elements missing from the reference in order to arrive at the claimed invention.

The Examiner's statement that "**In the alternative, it would have been obvious for one skilled in the art at the time to have modified the prior art as motivated by need to add additionally security**" highlights the above issue. Applicant's claimed invention is not focused on fraud detection, so motivating the modification of Keen based on fraud detection is misplaced. Moreover, **even if there was** motivation based on fraud

detection to improve upon Keen, that motivation does not urge the significant modifications that would be required to arrive at the claimed invention.

The Examiner's Treatment of the Dependent Claims

Claim 21. The Office Action objects to the use of the term “parsed snippets” in Claim 21* as being indefinite based on the rhetorical question: “When does a[n] image become a snippet[?].” (*Paragraph (1) of the Office Action refers to Claim 20, which does not recite “parsed snippet;” Applicant understands the Examiner to have been referring to Claim 21.)

The basic test for indefiniteness under 35 U.S.C. § 112(2) is that the person of ordinary skill must reasonably comprehend the bounds of the claimed invention. Applicant respectfully submits that the skilled artisan would have little difficulty in understanding the meaning of “parsed snipped” in the context of Claim 21.

Claim 21 provides that if the form code identifier is not ascertained (e.g., recognized by the OCR process), then the forms are processed as “full images.” If the form code identifier can be ascertained, the forms are processed as “parsed snippets.”

With that background, Applicant submits that it is well known in the field of form processing that forms can evaluated based on their “full images,” or alternatively, they can be broken down into their constituent fields. Thus, a form can be broken down into its fields, or “parsed” into a series of “snippets.” The Keen reference itself refers to the snippet concept in discussing how a form can be sorted based on the “Areas of Interest” in the form. See Keen, Col., 3, lines 18-24.

The specification would inform the person of ordinary skill of the bounds of the invention of Claim 21 consistent with the above. At pages 8-9, the specification describes how the form is scanned into the system and read using character recognition. Then the scanned, read form can be processed as “full image 418” or first sent to a “parsing process 416.” See Specification, page 9, lines 20-23. Page 10 further describes how a form 501 containing a series of fields (address, name, social security number, etc.) can be decomposed or parsed into the individual fields or snippets. Figure 5 of Applicant’s specification is dedicated to explaining this process, and Applicant respectfully submits that the person of ordinary skill would easily comprehend the claim language.

On the question of patentability, Claim 21 provides that the contingent workflow processing depends on whether a form code identifier can be determined. If yes, the form is processed using parsed snippet data; if not, the form is processed using full image data. Keen does not remotely suggest this feature, and the Examiner has made no attempt to show that it does.

Claim 28. Claim 28 recites particular contingent factors upon which the contingent flow processing will proceed, including (1) “ability to determine the form code identifier,” (2) “assigned priority of a form,” (3) “indication of a change of address,” and (4) “indicia of the type of error from the reading step.” **Keen does not teach any single one of these, much less a contingent flow processing system incorporating all four,** and the Examiner has made no attempt to show that it does.

IV. Conclusion

Applicant respectfully submits that the application is in condition for allowance and respectfully requests a notice of allowance for the pending claims. Should the Examiner determine that any further action is necessary to place this application in condition for allowance, the Examiner is kindly requested and encouraged to telephone Applicant's undersigned representative at the number listed below.

Applicant is timely filing this response with fees appropriate for this RCE which is filed within 3 months of the Office Action. If any additional fees are deemed necessary, Applicant hereby provides authorization to charge such fees against deposit account 50-0206. If any refunds are due, Applicant hereby provides authorization to credit such refunds against the deposit account.

Respectfully submitted,



Stephen T. Schreiner
Reg. No. 43,097

Date: 2/11/05
Hunton & Williams (Phone: 202-955-1500)
1900 K Street, N.W.
Washington, D.C. 20006-1109